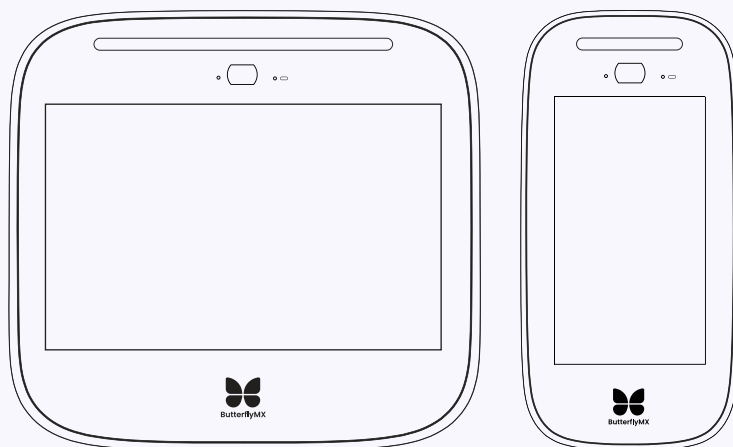


Surface Mount Intercom

Quick Start Guide



Installation is better with the app

The app will walk you through activation and testing, plus includes resources and AI guidance.



Click to download [iPhone](#) | [Android](#)

ButterflyMX Support

(800) 398-4416, ext. 2

Mon—Fri 6am-10pm ET

Sat—Sun 8am-8pm ET

support@butterflymx.com

Quick Start Guide

- 03** Package contents
- 05** Intercom overview
- 07** Installation steps
- 29** Compliance information

Package contents

8" or 12" Intercom
with I/O port cover using
8x captive screws

Key

Power dongle

AC power cord

24VDC power supply

For surface mount configurations

Backplate	12 PIN Phoenix Connector
Articulating arm	2X 6 PIN Phoenix Connectors
Mini mount	2x electrical components (diode, varistor)
I/O screwdriver	7x drywall anchors
Pocket level	7x FH8#-15×1" TP-A mounting screws
Pocket screwdriver	

What is NOT Included

Items listed below are not included with the ButterflyMX Intercom and must be sourced prior to installation. Note that this is not an exhaustive list.

Uninterrupted Power Supply (UPS)

The Intercom warranty is void without an installed UPS (minimum 600VA / 300W). We recommend the *APC UPS Battery Backup and Surge Protector, model BE600M1 Back-UPS*.

Electric Locking Hardware

The ButterflyMX Intercom can only operate doors that have electric locking hardware installed (such as electric strikes, magnetic locks, automatic doors, electrified panic bars, etc.). Please see the installation manual of your electric locking hardware for the wiring requirements and best installation practices.

Low Voltage Cables

Connect the Intercom to electric locking hardware and any other accessories. These cables should be rated to handle the voltage and amperage necessary for their particular use case.

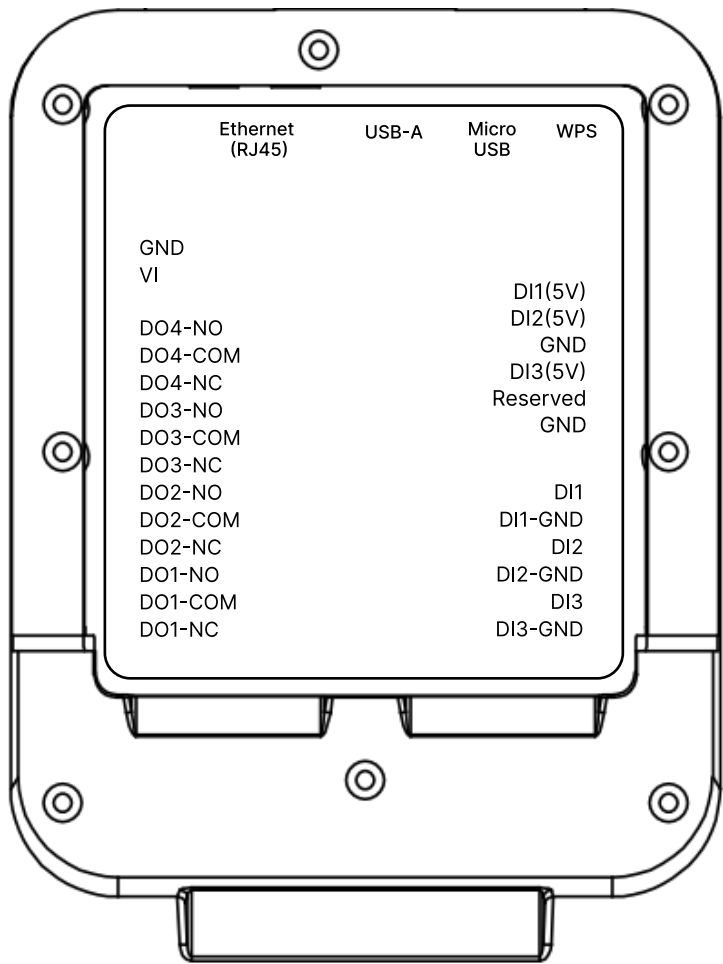
Network Cable

Required to connect the Intercom to the Ethernet router; must be Cat5e or higher. If the distance is greater than 300 ft, a switch or repeater is required.

Request to Exit (REX) Device

The door's exit hardware should allow for mechanical free egress. If it does not, refer to local codes and jurisdictions for requirements.

Intercom overview



Ethernet (RJ45)

Connect with RJ45 using a Cat5e rated cable or higher. Wi-Fi is supported if Ethernet is not available.

USB-A

Input for keyboard and mouse required for programming and troubleshooting.

WPS

Lever for triggering WPS Wi-Fi connection when pressed in conjunction with router's WPS button.

Power Supply (GND / VI)

Connect using provided 24VDC power supply. Power supply is compatible with a 120V AC wall outlet.

Dry Relay Outputs (DO1, DO2, DO3, DO4)

Four outputs for electric locking hardware, powered by an external power supply. Each output is rated up to 2A/30VDC and 0.5A/125VAC.

COMING SOON Digital Inputs (DI1, DI2, DI3)

Three digital inputs, programmable for request-to-exit or door-state-sensor devices (such as a push-to-exit button or motion sensor).

Installation steps

Prepare the Intercom for installation

1. Identify the internet router and confirm internet connection method and access. If connecting via Wi-Fi, take note of the SSID and password.
2. Ensure there is enough space behind the mounting location for excess wiring.
3. Use the included key at the lock on the bottom of the Intercom to separate the Intercom and back plate.

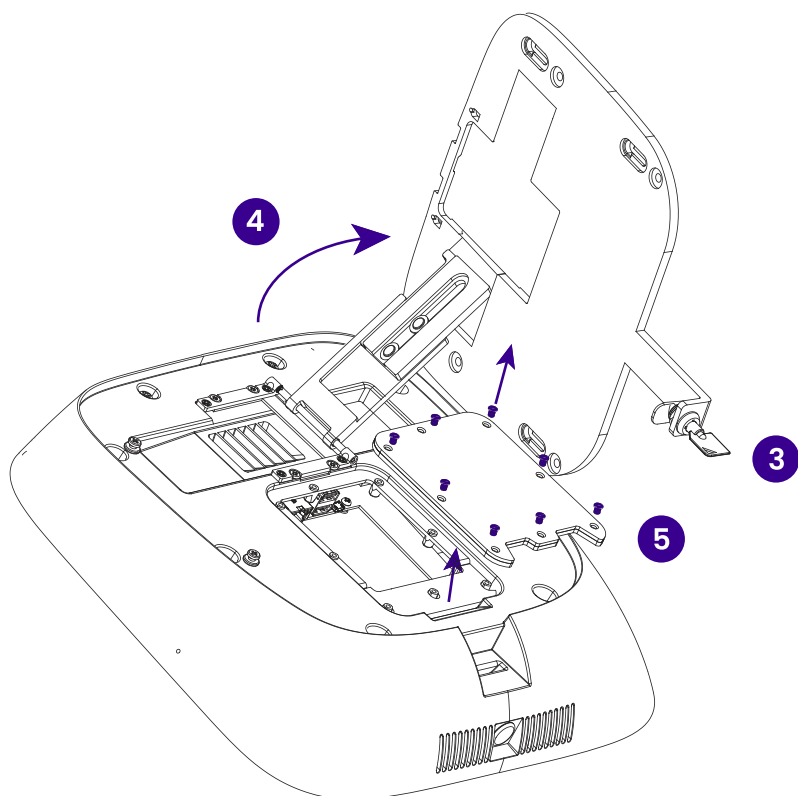
The key cannot be removed from the lock when the lock is in the open state.

4. Move the back plate off of the Intercom, shifting it up and off of the securing screws. Be sure to note the **serial number** as it will be required during activation.

The articulating arm attaches the back plate to the Intercom and cannot be removed.

5. Remove the mini mount from the back plate of the Intercom if still attached. Using the included screwdriver, unscrew the eight captive screws that secure the I/O plate to the Intercom.

The I/O plate will need to be re-installed following the cable connections. Keep the plate with attached screws in a secure and easily accessible location.



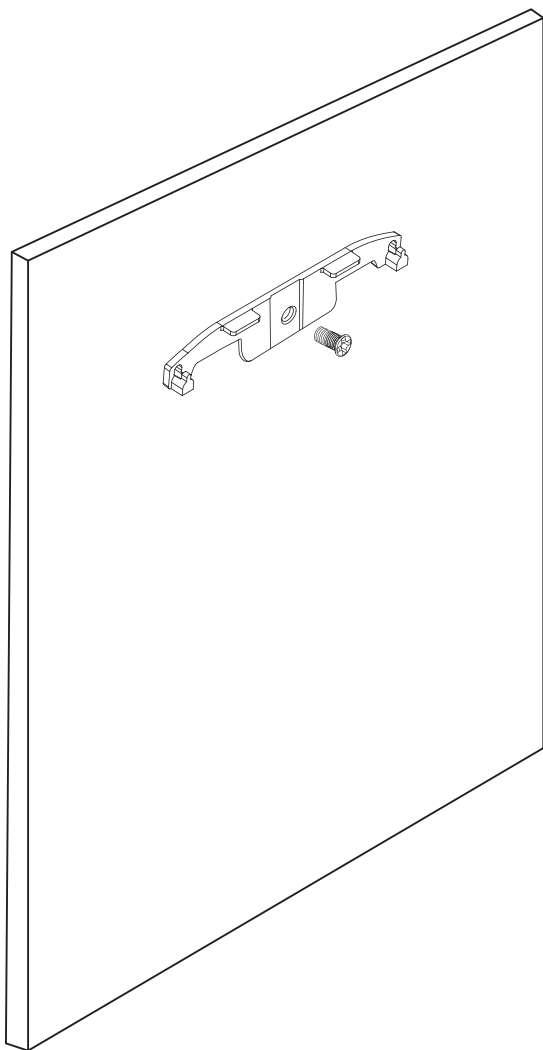
Installation steps

Mount the Backplate

Note the Intercom cannot be disconnected from the back plate.

1. **Drill pilot holes with the provided drilling template** to ensure the back plate is mounted correctly
2. **Install the mini mount** using one FH8#-15×1" screw. Use the included level to ensure the mini mount is horizontally aligned.

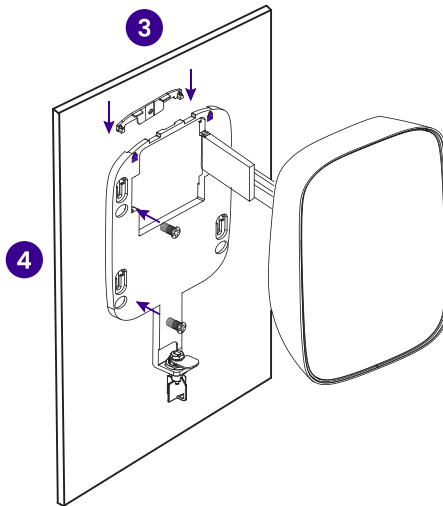
Note: Seven FH8#-15×1" screws are included in the mounting kit. Four screws are required to secure the back plate to the wall, and one screw is required to secure the mini mount.



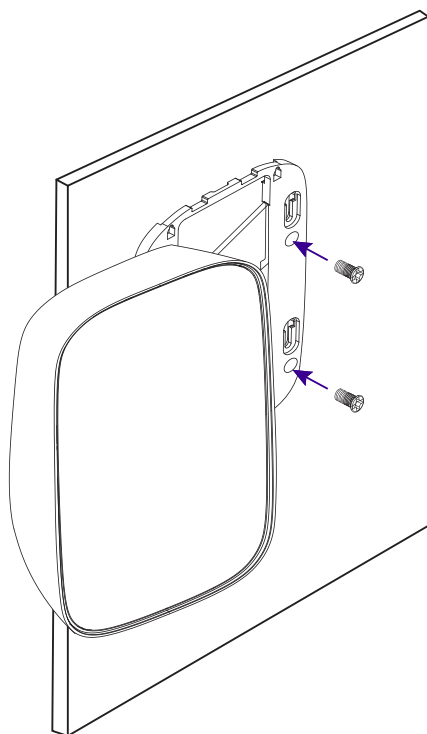
Installation steps

Mount the Backplate

3. **Secure the back plate and Intercom on the mini mount** by hooking the brackets at the top of the back plate to the mini mount. Use the provided level to verify proper alignment of the back plate and Intercom.
4. **Mount the back plate to the wall** by fastening two FH8#x1 screws on the left-hand side of the plate.



- 5.** **Finish securing the back plate** by fastening two FH8#x1 screws on the right-hand side of the plate.



Installation steps

Wiring Termination Sequence for Ethernet and Power

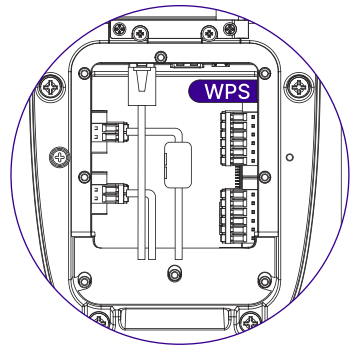
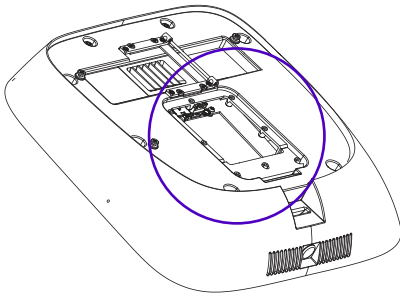
Attention: Please ensure network connections are disconnected at the network switch and power is disconnected at the UPS power location before starting these steps.

It's important to create an appropriate service loop to facilitate Intercom movement and accommodate future service requirements.

- 1. Thread all cables through the backplate**, passing them through the star openings on either side of the black rubber gasket.

Ensure an even distribution of cables between the two star openings.

- 2. Connect the power dongle to the Intercom's terminal block.**



3. **Secure the winged screws on the power dongle's 2-PIN terminal block connector** with the pocket screwdriver included in the installation kit.
4. **Connect all required relays and I/O connectors.** Secure screws on all 2-PIN terminal block connections.
5. **Plug in the Ethernet cable** if the internet is coming from Ethernet or Wi-Fi without WPS. If using Wi-Fi with WPS, no Ethernet connection is required.

ATTENTION!

Do not connect power source until all wiring is complete.

Installation steps

Connect Network (Ethernet + Wi-Fi without WPS)

The ButterflyMX Intercom can be connected to the network through Ethernet or Wi-Fi. Whenever possible, Ethernet connections are preferred to ensure connection stability. If connecting through Wi-Fi without WPS, you must first connect the Ethernet cable to the Intercom.

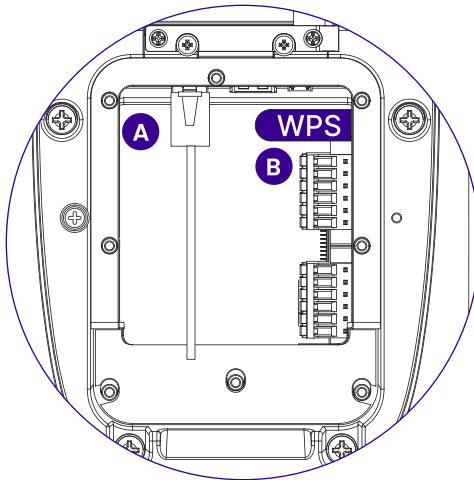
Proceed to the next step, "Connect Power," if you plan to establish a Wi-Fi connection using WPS.

Option A

Do not connect power until ethernet and door strike connections have been completed. Failure to do so can cause damage to the device and will void the Intercom's warranty.

Connect via Ethernet Cable.

Plug one end of the Cat5e or higher cable into the Ethernet port on the Intercom, and the other end to an available port on the building's network equipment.



Option B

Connect via Wi-Fi (Without WPS).

For Wi-Fi connectivity in a building lacking a router with a WPS button, **installers must perform a pre-installation site visit** to assess Wi-Fi signal strength at the intended Intercom installation location.

To connect the Intercom to Wi-Fi without a WPS button, there must be an established wired internet connection for the setup. If opting for Wi-Fi, ensure the Intercom is connected via Ethernet before connecting power.

The Intercom must first be installed and activated prior to connecting Wi-Fi. Call ButterflyMX Support during the activation process detailed in Step 7 to activate Wi-Fi.

ATTENTION!

If connecting through Wi-Fi without WPS, you must first connect the Ethernet cable to the Intercom.

Installation steps

Connect Network (Wi-Fi through WPS)

If your router has a WPS button and the Intercom hasn't been connected through Ethernet (either for hardwired or Wi-Fi setups), follow the steps below for connection. If WPS connection fails or your router lacks a WPS button, revisit the 'Connect Network' section in this guide to set up Ethernet.

Note: A site visit is necessary if Wi-Fi is the sole intended method for internet connectivity.

- 1. Ensure the Intercom has been successfully connected to power.**
- 2. Push the WPS button on the router and press down on the WPS lever on the Intercom at the same time.**
- 3. Wait 5 minutes** for the WPS Wi-Fi connection to be established with the ButterflyMX backend.
- 4. Testing and verification will happen during activation.** WPS Wi-Fi connection will be verified and tested later in the installation, after contacting ButterflyMX Support to complete activation.

Connect Relay(s)

The Intercom requires diodes (for DC locks) or varistors (for AC locks). This ButterflyMX Intercom does not require an isolation relay; however, if installed, maintain separate power supplies for the circuit powering the lock and the circuit powering the relay.

If an ACS is present:

- 1. Connect relay to designated input.**
A relay from the Intercom will need to connect to the third-party ACS designated input. Consult with your third-party ACS support to configure the input to unlock the lock.
- 2. Or, connect relay to existing REX input.**
If a designated input is not available, connect the Intercom relay into the existing REX input on the ACS, as it may already be programmed to release the door.

If an ACS is not present:

- 1. Connect relay to lock's power supply.**
The Intercom relay will need to interface with the lock's power supply.
- 2. Ensure the diode/varistor is installed properly**
Position the diode/varistor as close as possible to the electric locking hardware.

Installation steps

Connect the Intercom to Electric Locking Hardware (Option 1 of 2)

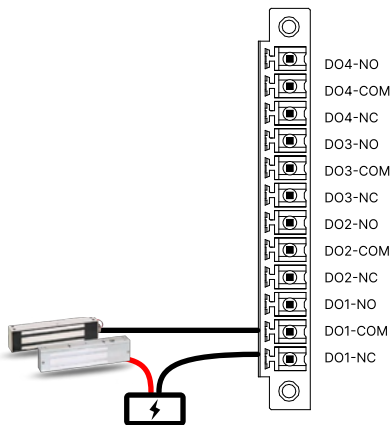
Do not connect power until ethernet and door strike connections have been completed. Failure to do so can cause damage to the device and will void the Intercom's warranty.

Before you install the electric locking hardware, check the manufacturer's documentation to set the mode of operation.

1. Connect to electric locking hardware.

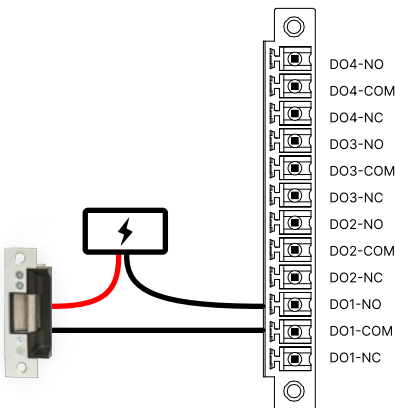
Fail safe

Electric locking hardware (fail safe) powered by external power supply.



Fail secure

Electric locking hardware (fail secure) powered by external power supply.



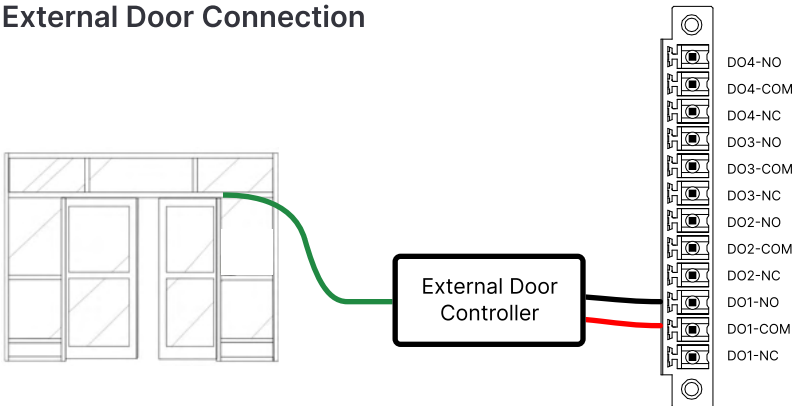
Connect the Intercom to Electric Locking Hardware (Option 2 of 2)

- 1. Connect automatic door or externally controlled door to the Intercom.

Be sure to connect the wires to the correct terminals (N.O. and COM) on the dry relay output.

Follow the manufacturer's documentation to connect the external door controller for desired operation.

External Door Connection



Installation steps

Connect Power

Attention: Ethernet must be connected at the Intercom and router prior to connecting power. Failure to do so can cause damage to the device and will void the Intercom's warranty.

These steps must be followed in order. Do not connect AC power cord to power supply before completing the steps below. Never use AC to power the Intercom.

- 1. Verify the connection from the power dongle to the Intercom is secure.**
Be sure the winged screws on the power dongle's 2-PIN terminal block connector are fastened.
- 2. Attach the 24V power supply to the open end of the power dongle.**
- 3. Connect the AC power cord to the 24V power supply.**
- 4. Connect the full Intercom power supply (dongle, 24V power supply, and AC power cord) to a UPS battery backup + surge protector.**

ATTENTION!

The Intercom warranty is void without an installed UPS (minimum 600VA / 300W). We recommend the APC UPS Battery Backup and Surge Protector, model BE600M1 Back-UPS.



5. Connect UPS to a power source, plugging into 120V 3-prong wall outlet.

The UPS should be used for the ButterflyMX Intercom only.

6. Wait for 45-60 seconds for the Intercom startup screen to appear.

If the touchscreen does not illuminate after 60 seconds, the Intercom is not connected to power. Use caution if splicing to extend the required ButterflyMX power cable.

If installing this Intercom outside of the United States, contact SolutionsArchitecture@butterflymx.com for installation guidance prior to on-site installation.

Installation steps

Activate and Test

All systems must be activated once installation is complete and while the installer is on-site. Please schedule installations with this requirement in mind.

- 1. Use the Installer app to activate the intercom.** Activation will verify all systems are operational, document installed hardware, and activate the ButterflyMX system.

Be prepared to provide wiring specifications, building address, and Intercom serial number.

- 2. The Installer app will help the installer test connectivity and unlocking** for confirmation of installation steps and verification Intercom functionality.

The Installer app



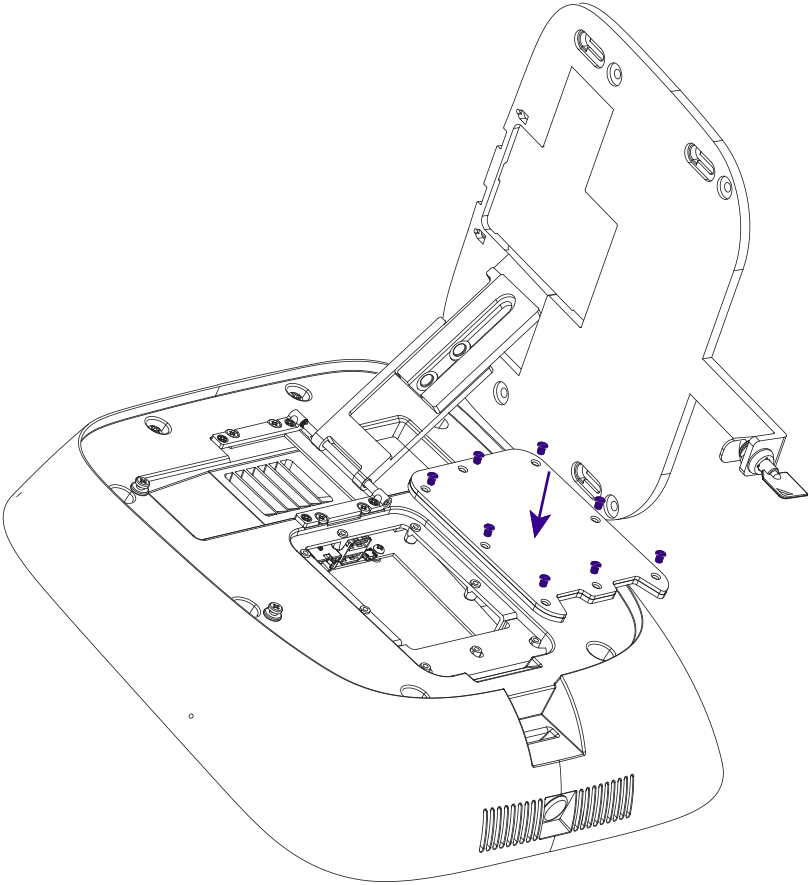
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Installation steps

Mount the Intercom

- 1.** **Ensure all wiring fits within the I/O port**, and all 2-PIN terminal block connection wing screws have been fastened.
- 2.** **Distribute wiring evenly** through the bottom opening gasket of the back plate to maintain an IP65 seal.
- 3.** **Re-install the I/O plate using attached captive screws.** Tighten screws using included screwdriver to approximately 10 ft-lbs (foot-pounds).

I/O plate must be level with the back of the Intercom to complete the installation and maintain IP65 rating.
- 4.** **Retract the articulating arm** by lightly pushing the Intercom towards the back plate.



Installation steps

Mount the Intercom

5. **Move the Intercom into position on the back plate.**

Manually feed the cabling through the Intercom backplate to prevent pinched cable.

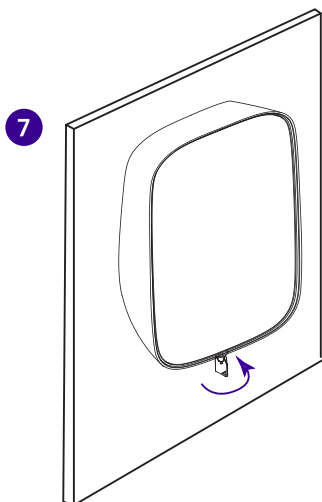
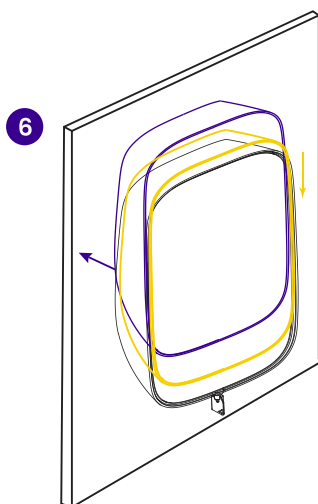
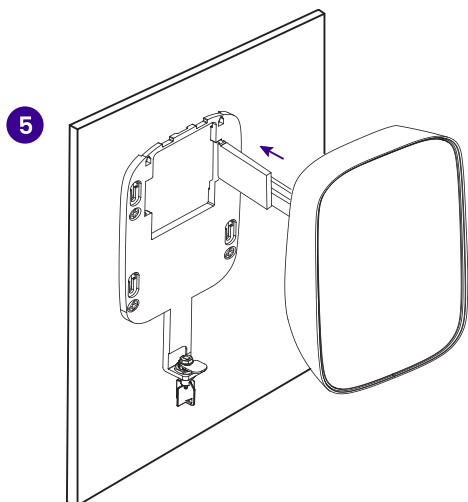
6. **Secure the Intercom to the backplate by firmly pushing down against the mounting plate to engage the keyhole mount.**

The Intercom will not be secured to the back plate if the I/O plate is not flat against it.

Adequate downward pressure is required to engage the keyhole mount.

7. **Lock the Intercom onto the backplate using the keys provided.**

Note that the keys cannot be removed from the lock when the lock is in the open state.



Compliance

Federal Communications Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada, Industry Canada (IC) Notice

Canada, avis d'Industry Canada (IC)

This device complies with Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec Industrie Canada exemptes de licence RSS standard(s).

Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

Radio Frequency (RF) Exposure Information

Informations concernant l'exposition aux fréquences radio (RF)

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has also been evaluated and shown compliant with the IC RF Exposure limits under mobile exposure conditions (antennas are greater than 20 cm from a person's body).

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce périphérique a également été évalué et démontré conforme aux limites d'exposition aux RF d'IC dans des conditions d'exposition à des appareils mobiles (antennes supérieures à 20 cm à partir du corps d'une personne).

Compliance

UL 294

UL 294 Performance Levels

Destructive	Line Security	Endurance	Standby Power
Level I	Level I	Level IV	Level I

ULC60839-11-1: Grade 1, Environment: Outdoor

Ethernet, USB, WPS, Wiegand, Network, WI-FI, and UPS were not evaluated during intercom UL testing.

Ethernet, USB, WPS, Wiegand, Network, WI-FI et UPS n'ont pas été évalués lors des tests UL d'interphone.

Power Adapter

Model: EDAC Power Elec. EA10681H

Output: 24 V 2A

To maintain certification, do not use any power supply other than the one provided with this Intercom.

Pour maintenir la certification, n'utilisez aucune autre source d'alimentation que celle fournie avec cet interphone.

UNII devices

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems. For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725–5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate.

Where applicable, antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

Les dispositifs fonctionnant dans la bande de 5 150 à 5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux. Pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5 725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée, selon le cas.

Lorsqu'il y a lieu, les types d'antennes (s'il y en a plusieurs), les numéros de modèle de l'antenne et les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, énoncée à la section 6.2.2.3, doivent être clairement indiqués.

Compliance

The product is intended to be supplied by a UL Listed Power Unit marked "L.P.S." (or "Limited Power Source") and is rated 9-24Vdc, 2.5-0.88A min., Tma 40 degree C. *Le produit est destiné à être alimenté par une unité d'alimentation UL répertoriée marquée "L.P.S." (ou "Limited Power Source") et est noté 9-24Vcc, 2,5-0,88A min., Tma 40 degrés Celsius.*

If further assistance with purchasing the power source is needed, please contact AVALUE TECHNOLOGY CORPORATION. *Si vous avez besoin d'une assistance supplémentaire pour l'achat de la source d'alimentation, veuillez contacter AVALUE TECHNOLOGY CORPORATION.*

Adapter is used for interior circuit only. *L'adaptateur est utilisé uniquement pour le circuit intérieur.*

Do not replace batteries of the EUT.

Risk of explosion may occur if the battery is replaced by an incorrect type. Dispose of used batteries according to the instructions:

- Leaving an EUT in an extremely high temperature surrounding environment can result in an explosion or the leakage of flammable liquid or gas.
- EUT subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.
- Explosion may occur due to disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery.

Ne remplacez pas les piles de l'EUT.

Un risque d'explosion peut survenir si la pile est remplacée par un type incorrect. Éliminez les piles usagées conformément aux instructions suivantes:

- Laisser un EUT dans un environnement extrêmement chaud peut entraîner une explosion ou une fuite de liquide ou de gaz inflammable.
- Un EUT soumis à une pression atmosphérique extrêmement basse peut entraîner une explosion ou une fuite de liquide ou de gaz inflammable.
- Une explosion peut survenir en cas d'élimination d'une pile dans le feu ou un four chaud, ou en cas d'écrasement ou de coupe mécanique d'une pile.

Warranty Information

ButterflyMX has a two-year limited warranty to end customers.
For full details, see <https://butterflymx.com/warranty>



Download the Installer app to find more resources and AI guidance.